How can systems learn from asthma deaths: Working with your CDOP

Christina Keating, North Central London Child Death Overview Panel Designated Lead Nurse – September 2025

Understanding the Impact of Asthma Deaths in children



Asthma is a leading cause of death in children and young people.



Asthma deaths in children are preventable with the right systems in place.



Asthma deaths in children are often due to poor management, lack of awareness, and delays in treatment.

What is CDOP -Child Death Overview Panel Child Death Review partners (NHS and Public Health) statutory responsibility to review the deaths of children and young people up to their 18th birthday.

Each case is reviewed against 4 domains with contributory factors scored as modifiable.

Multiagency panel, chaired by Independent chair.

Overall aim to reduce contributory factors to prevent further deaths.

Child Death Review process

Overview

This chapter briefly describes the whole child death review process. The flow chart below (fig. 1) sets out the main stages of the child death review process. To help readers navigate the guidance, it appears at the start of chapters 2-6 with the relevant stage highlighted.

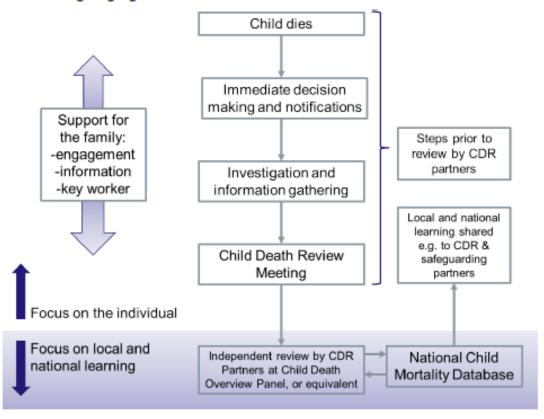


Figure 1 Chart illustrating the full process of a child death review. This includes both the statutory responsibilities of CDR partners to review the deaths of children at an independent multi-agency panel (described here, and throughout, as review at CDOP or equivalent), and the processes that precede or follow this independent review. Further explanation is below.

Joint Agency Response meeting

Police Social care Education Health

Each case reviewed against NCMD Domains

Domain A – factors intrinsic to child

Domain B – factors related to family

Domain C – factors related to environment

Domain D – factors related to service provision

Modifiable factors and/or contributory factors recorded for each domain

All data is then shared with the National Child Mortality Database team

Key findings National Child Mortality Database Thematic report

There were 54 child deaths due to asthma between April 2019 and March 2023

Child deaths due to asthma







15-17 year olds were the age group with the highest death rate due



The death rate was 4x higher for children from more deprived areas than tess deprived



87% of the cordiac arrests accumed outside of hospital of home or in a public place!



65% had attended on emergency department or had in amergency admission in the year before death



87% had three or more reliever inhalers dispensed in the year before death



All the children who died had been exposed to air pollution above WHO guidelines

27% were born before 37 weeks gestation or

with a birthweight

under 2500g





Themes from CDOP reviews

Smoking by

Poor communication family members between and within services



Concerns about abuse or neglect



No asthma action plan in place





Poor indoor air quality



Pets in the house



Altergies

Full Beabags from the report, including reconvendations, can be found at novel infoorthese

Key Findings

54 deaths in 4 years (~1 every 4 weeks).

Highest rates in 15–17-year-olds.

Boys > Girls; Higher in ethnic minority groups.

4x higher in most deprived areas.

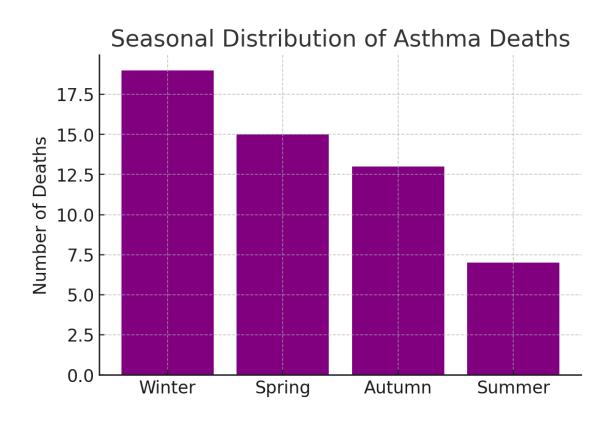
65% had ED/hospital attendance in year before death.

Widespread SABA overuse and ICS underuse.

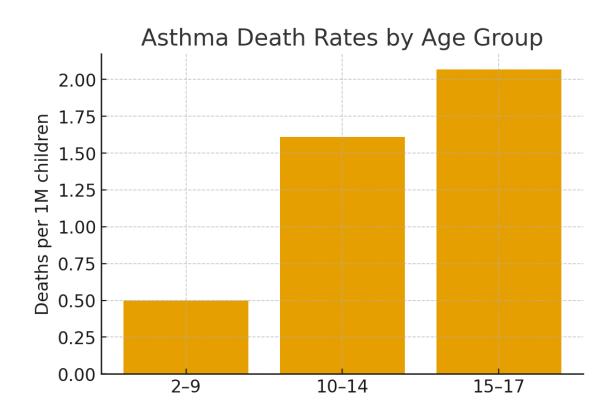
87% arrests occurred out of hospital.

81% of deaths had modifiable factors.

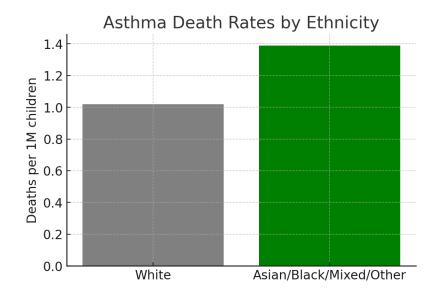
Seasonal distribution of asthma deaths

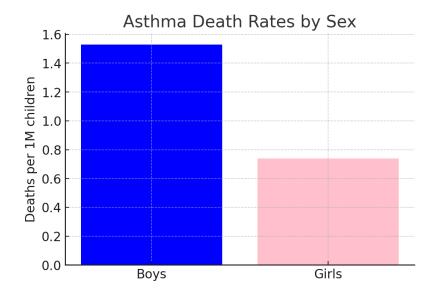


Asthma death rates by age group

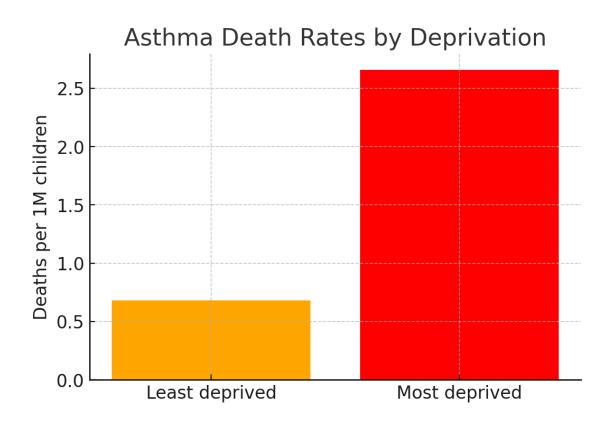


Child Death data





Asthma death rates by deprivation



Anonymised case study

Domain A – factors intrinsic to child – child had been using blue inhaler in medical welfare office as well as at home, not using "other" inhaler

Domain B – factors related to family – low income family, single mother - working nights, focussed on "blue" inhaler only, asked if she could buy inhaler from pharmacy

Domain C – factors related to environment – Extremely cold outside – windows opened when attack started

Domain D – factors related to service provision – multiple prescriptions for reliever not identified as a concern, attendance at medical welfare office was not shared with mother

Modifiable factors noted in each domain

Key themes and trends in asthma-related child deaths – take home messages



INADEQUATE TREATMENT PLANS,
MISSED APPOINTMENTS, DELAYED
MEDICAL RESPONSE, AND FAILURE TO
USE ASTHMA ACTION PLANS
EFFECTIVELY.





INCONSISTENT ASTHMA
MANAGEMENT: INCOMPLETE
OR OUTDATED ASTHMA
ACTION PLANS.



INADEQUATE EMERGENCY
RESPONSE: DELAYS IN SEEKING
MEDICAL HELP DURING
ASTHMA ATTACKS.



COMMUNICATION ISSUES: LACK OF COORDINATION BETWEEN PRIMARY CARE, HOSPITALS, AND PARENTS.

SOCIOECONOMIC FACTORS: FAMILIES FACING FINANCIAL OR LOGISTICAL BARRIERS TO ACCESSING PROPER CARE.

Prevention of Future Deaths Notice – case study

Department was understaffed

Should have had observations every hour to demonstrate no improvement - the junior doctor would have prompted senior review

No senior medical review would have changed the course of her management and saved her life

Prescribed an antibiotic on a script – first dose not given which meant infection was not tackled as quickly as it could have been.

Doctor was unaware of the possibility of adult onset asthma.

Her parents were told to bring her back if they had any concerns - What worries me about it in this context is that her parents had brought her to hospital because they were concerned. They were then reassured by hospital staff.

When she began to deteriorate again, her parents' natural instinct had been blunted by their first visit to the hospital.

Resources – asthma is everybody's business

Resources to support clinicians managing children and young people with asthma 1 in every 11 children has asthma so asthma is everybody's business

- 1. Ensure every children and young person (CYP) sees a clinician who is appropriately trained. See the nationally developed tiered asthma competencies for details.
- 2. No one should be prescribed an inhaler without an asthma diagnosis or being coded for suspected asthma [1,2].
- 3. No one should be prescribed a blue (SABA) inhaler alone without an inhaled corticosteroid inhaler (as-needed or regularly) [1,2].
- 4. Children and young people with asthma need an asthma review every year and after every attack. Asthma attacks are preventable. An asthma review by an appropriately trained clinician 48 hours after every attack helps to identify and deal with modifiable risk factors [2, refer to Table 2-2].
- 5. Good inhaler technique is vital: observe young patients using their inhalers. Less than three-quarters of children and young people have any form of instruction in how to use their inhaler. Poor inhaler technique means patients don't get the full benefit of their asthma medication.
- 6. Ensure all CYP with asthma have a written personalised asthma action plan in place. A written asthma action plan drawn up between a clinician and patient means people are four times less likely to have to go to hospital for their asthma.
- 7. Check for 'was not brought' to appointments is this a safeguarding issue?
- 8. Consider air quality and its impact on lung health. Every asthma conversation should include the impact of outdoor and indoor air pollution on CYP asthma.

https://www.nice.org.uk/guidance/ng245

²

Resources - Schools/school nurses

Resources for schools/school nurses supporting children and young people with asthma 1 in every 11 children has asthma so asthma is everybody's business

- 1. Is your school Asthma Friendly? The revised London Asthma Friendly Schools Guide [3] provides background, advice, tools and resources to help schools keep young people with asthma safe at school.
- 2. Ensure your staff have undertaken tier 1 basic asthma understanding training. This free 45-minute online course gives all the asthma basics for teachers and other school staff and ensures they will know what to do if a student has an asthma attack. School nurses can undertake tiers 2 or 3.
- 3. Do you know which CYP have asthma? Are they on your asthma register?
- 4. Has every CYP with asthma got an asthma action plan and a spare inhaler at school? Having an up-to-date plan and easy access to inhaler ensures any breathlessness or wheeze can be dealt with quickly.
- 5. Do all your staff know what to do if a child or young person has an asthma attack? This poster and video will guide you.
- 6. Do you have an emergency asthma kit? A list of contents can be found in the London Asthma Friendly Schools Guide [3].
- 7. Indoor and outdoor air pollution can trigger asthma. Read more here [3].
- 3. https://www.transformationpartners.nhs.uk/resource/london-asthma-toolkit/schools/asthma-friendly-schools/





Child having an asthma attack? It's TIME to act now

Think

Does the chil

Coughing
Cannot wal

They could b

Does the child have any of the following signs?

- Cannot walk
 Cannot talk
 Drowsy or tired

They could be having an asthma attack and need urgent treatment

:

ntervene

- Stay with the child. Send someone else to get their inhaler and spacer.
- Keep calm and reassure the child. Sit them up and slightly forward.
- When you administer the inhaler, note down the time.

Which inhaler should I use? Salbutamol (blue inhaler) is the most common reliever inhaler It acts quickly to treat asthma symptoms and attacks. Some children may use alternatives (e.g. Symbicort) – instructions can be found in the child's personalised asthma plan.

M

ledicine

- · Shake the inhaler, then place inside the spacer's adapter.
- Spray 1 puff. The child then takes 5 breaths using the spacer's mouthpiece.
- Repeat the above steps for up to 10 puffs if needed

If salbutamol inhaler doesn't relieve symptoms, or if the effect doesn't last more than 4 hou this is a medical emergency — follow the 'Emergency' steps below. Inform parents and emergency services that this is an asthma attack and how many puffs you have given.

Ε

Emergency

- Call the child's parent or guardian. If the child has improved, the family should
 collect them and take them directly to the GP or A&E for an urgent check-up.
- If the child isn't improving, or if you're worried or unsure in any way call 999 for an ambulance and say: "child asthma attack".
- If the ambulance takes longer than 10 minutes and the child hasn't improved,
- repeat the 'Medicine' steps above. Give up to 10 more puffs if needed.

Resources - Social workers

Resources for social workers supporting children and young people with asthma 1 in every 11 children has asthma so asthma is everybody's business

- 1. Has the child or young person had a regular asthma review with a GP or asthma nurse? They should be seen for this review every year and also within 48 hours of every attack, to make sure that the attack is definitely over and to make any changes to medication or management to prevent a recurrence.
- 2. Are they attending any other regular appointments for asthma? Consider a CYP not being brought for an appointment as a safeguarding concern.
- If the CYP has asthma inhalers, check that they have been diagnosed with asthma or possible asthma. Having a
 formal or suspected diagnosis noted on their GP record means they are more likely to receive regular check-ups to ensure
 their asthma is controlled.
- 4. Is the parent or young person collecting the medication they have been prescribed from the pharmacy?
- 5. Is the CYP taking the medication that has been prescribed for their asthma?
- 6. Children and young people with asthma should not be using a blue reliever/rescue inhaler by itself it must be alongside a brown preventer inhaler. This prevents the causes of the breathlessness and wheeze associated with asthma as well as the symptoms themselves.
- 7. During home visits, this checklist can help identify damp and mould that could trigger asthma. It also contains guidance on actions to take, details of landlord responsibilities, plus letter templates and other resources.

Resources – Health visitors

Resources for health visitors supporting children and young people with asthma 1 in every 11 children has asthma so asthma is everybody's business

- During home visits, this checklist can help identify damp and mould that could trigger asthma. It also contains guidance
 on actions to take, details of landlord responsibilities, plus letter templates and other resources.
- 2. Is there evidence of children, young people or family members smoking or vaping? NHS advice on smoking cessation can be found here. While vaping can help adults stop smoking, it is not for under-18s it is dangerous and can cause permanent lung damage. Advice for young people on vaping can be found here.
- 3. External pollution can also trigger asthma in people of all ages. The health effects of air pollution on asthma are described in this webinar and associated slides. On days when pollution levels are high, people with asthma should avoid areas with heavy motor traffic, especially at rush hour. They should keep windows on to busy roads closed and avoid physical activity in high traffic areas. AirTEXT provides free alerts and forecasts for air quality in London anyone can sign up.
- 4. Check if any children or young people have asthma or suspected asthma. Have they had a regular asthma review with a GP or asthma nurse? They should be seen for this review every year and also within 48 hours of every attack, to make sure that the attack is definitely over and to make any changes to medication or management to prevent a recurrence.
- 5. Children and young people with asthma should not be using a blue reliever/rescue inhaler by itself it must be alongside a brown preventer inhaler. This prevents the causes of the breathlessness and wheeze associated with asthma as well as the symptoms themselves.
- 6. For resources in other languages, see the <u>Beat Asthma website</u>. It includes asthma-related information translated into the top six non-English languages spoken in the UK.

Resources - pharmacists

Resources for pharmacists supporting children and young people with asthma 1 in every 11 children has asthma so asthma is everybody's business

- 1. If the CYP has asthma inhalers, check with the GP that they have been diagnosed with asthma or possible asthma. Having a formal or suspected diagnosis noted on their GP record means they are more likely to receive regular check-ups to ensure their asthma is controlled.
- 2. Children and young people with asthma should not be using a blue reliever/rescue inhaler alone it must be prescribed alongside a brown preventer inhaler, or in a combined form [4,5]. This prevents the causes of the breathlessness and wheeze associated with asthma as well as the symptoms themselves.
- 3. Check if the child or young person is having regular asthma reviews with a GP, asthma nurse or pharmacist. They should be seen for this review every year and also within 48 hours of every attack, to make sure that the attack is definitely over and to make any changes to medication or management to prevent a recurrence.
- 4. Is the parent or young person collecting the medication they have been prescribed from the pharmacy? If not, alert the GP surgery as this means their asthma is not being properly treated.
- 5. Is the CYP taking the medication that has been prescribed for their asthma? Adherence may be low particularly in teenagers; this will mean that asthma is not as well controlled as it should be.
- 6. Offer to check a child or young person's inhaler technique. RightBreathe has videos on how to use different inhalers.
- 7. Encourage all children to get a free flu vaccine. This includes home-schooled children and children not in mainstream education. Find out more about the flu vaccine for babies and children up to age 18.

Any questions

